

SYNONYMIES OF ANTILLEAN CHRYSOMELIDAE, WITH DESCRIPTIONS OF NEW SPECIES.

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I.

THE SPECIES OF *DISONYCHA* NOW INCLUDED UNDER *D. PENNSYLVANICA*.

While identifying material of Cuban Chrysomelidae collected by Mr. S. C. Bruner of Santiago de las Vegas, Cuba, I was struck by the resemblance of *Disonycha costipennis* to the Florida form, *Disonycha pensylvanica* var. *conjugata*. Mr. H. S. Barber, to whom I showed the specimens, informed me that he had long thought the two were identical. The notes here presented are the result of an attempt to dispel the confusion that has existed among the species allied to *D. pensylvanica*, and at present wrongly synonymized with it. The writer wishes to express her gratitude to Mr. K. G. Blair for searching for types of *Disonycha* in the British Museum.

The present status of *Disonycha pensylvanica* as given in Leng's catalogue is that six names are listed as synonyms or varieties under "*pensylvanica*." *Pensylvanica*, as it was originally spelled by Illiger,¹ was described in 1807, and *conjugata*, included as a variety, was described by Fabricius in 1801.² If the two were only varietally distinct, *conjugata* would, of course, be the valid name. The other names in the order of their publication are: *uniguttata* Say 1825,³ *vicina* Kirby 1837,⁴ *limbicollis* LeConte 1857,⁵ *pallipes* Crotch 1875,⁶ and *procera* Casey 1884.⁷

¹ Illiger, Mag. f. Insek., vol. 6, 1807, p. 146. In the 18th century the name Pennsylvania was ordinarily spelled "Pensylvania."

² Fabricius, Syst. Eleu., vol. 1, 1801, p. 405.

³ Say, Journ. Acad. Philadelphia, vol. 4, 1825, p. 88.

⁴ Kirby, Fauna Boreali Amer. vol. 4, 1837, p. 217.

⁵ LeConte, Rept. of Exp. & Surv. Miss. to Pac., vol. 12, pt. 3, 1860 (printed in June 1857), p. 67.

⁶ Crotch, Proc. Acad. Philadelphia, vol. 25, 1875, p. 64.

⁷ Casey, Cont. to Descr. and Syst. Coleop. of N. A., pt. 2, 1884, p. 182.

These names were originally grouped under one species (*pennsylvanica*) by Horn, who has been followed by subsequent workers, probably because the group as a whole possesses a single rather striking feature, the costate, parallel-sided elytra. As shown by the shape and structure of the aedeagus, as well as by external characters, there are at least four distinct species besides *conjugata*. The following key will assist in their identification.

KEY TO SPECIES OF DISONYCHA FORMERLY INCLUDED UNDER PENNSYLVANICA.

1. Elytra pale yellowish or reddish brown with paler yellow vittae, often indistinct. "Carolina," Florida, Cuba. *conjugata*
 Elytra black with pale yellow vittae.....2
2. Front of head, with exception of socket of basal antennal joint, black (in *limbicollis* sometimes a narrow pale line at base of front on clypeus); ventral surface, except for tip of abdomen, and legs entirely black.....3
 Lower part of front of head, usually femora and margin of abdomen pale or reddish.....4
3. Small (4-6 mm.), elytra very finely punctate, sometimes almost impunctate, in female distinctly costate; black vittae usually joined at apex. East of Mississippi, frequent in southern Atlantic States.....*pennsylvanica*
 Larger (6-7.5 mm.), elytra distinctly punctate, in female not costate or only very indistinctly so; black vittae rarely joined at apex. California.....*limbicollis*
4. Prothorax usually with large median spot considerably wider anteriorly, and two generally less pigmented lateral spots, the two lateral spots on well-marked knobby callosities; elytra distinctly punctate, only faint trace of elytral costae in female; aedeagus broad, not acutely tipped (see fig. 7); larger (6-8 mm.). United States east of Rockies. *uniguttata*
 Prothorax usually with only faint traces of five small spots, these occasionally darker and sometimes banded together; only indistinct traces of callosities; elytra indistinctly punctate, in female costae well marked; aedeagus acutely tipped (see fig. 6); smaller (5-7.5 mm.). United States east of Rockies.....*pallipes*

Pennsylvanica, as described by Illiger, stands out as a distinct species. He described it as 2 lines long, of the build of *glabrata*, shining, black with the roots of the antennae, or its small sunken

base, and the last ventral segment pale; the prothorax pale with a black median spot, rounded in front, narrowed behind. The elytra were unpunctured, black with two narrow pale vittae joining at apex, the legs black. Although said to have been taken in Pennsylvania, it was sent by Bosc from Carolina with other specimens. This description fits perfectly the small southern *Disonycha*, specimens of which are in the National Museum from Texas, Louisiana, Florida, Virginia and Maryland. The distinctive characters separating it from other costate species in the East are: The small size, the head entirely black except for the pale circle about the base of the antenna, the median black spot on pronotum, somewhat variable in size, the wide black elytral vittae joining at the apex, the black ventral surface except for the last ventral segment, and the black legs, and lastly the punctuation, which is extremely fine, giving the insect the shiny appearance of *glabrata*. The aedeagus (see fig. 5) is unlike that of *conjugata*. This is probably the species mentioned by Horn as a form of *pensylvanica* occurring in Florida and Louisiana. It is probably also what Blatchley has described as var. *parva*,⁸ although I have seen no specimens from as far north and inland as Knox Co., Indiana.

D. conjugata Fabricius, described from "Carolina, Mus. Bosc," is the most readily recognized species of the group on account of its pale coloring. Fabricius described it as having the head, thorax and elytra ferrugineous with two pale yellow elytral vittae joined at the apex, and the antennae, metasternum and tibiae black. Fabricius does not mention the costate elytra, but since the costation is most marked in the female and in the male is indistinct or obsolete, this omission is of slight significance. Olivier's figure⁹ shows it to be what is commonly labelled *conjugata* in collections.

The Cuban *D. costipennis*, described by Duval under the genus *Monomacra*¹⁰ is unquestionably identical with *conjugata*. Duval's description differs from that of Fabricius in that there is no mention of the pale elytral vittae, and the color of the antennae and tibiae is given as fuscous. Examination of a series of specimens shows that the paler vittae are sometimes indis-

⁸ Blatchley, Journ. N. Y. Ent. Soc., vol. 29, 1921, p. 16.

⁹ Olivier, Ent., vol. 6, 1808, pl. 2, fig. 30, p. 686.

¹⁰ Ramón de la Sagra, Hist. de la Isla de Cuba, vol. 7, 1856, p. 129.

tinguishable on the pale reddish brown elytra, particularly in darker or more greasy specimens, and that the darker coloring of the antennae, metasternum, and tibiae is a matter of individual variation. Dissection shows the aedeagi to be the same in both (see fig. 4). The species has been collected by E. A. Schwarz on *Polygonum*, and is definitely known from Florida and Cuba, in addition to Fabricius' "Carolina" record.

Disonycha pallipes Crotch was briefly described as having the elytra yellow with black vittae, the head black, and the "hind femora at least and part of the body red." No types seem to have been labelled as such and no type locality was recorded. Mr. Nathan Banks, of the Museum of Comparative Zoology, reports that there is no specimen under this name in the LeConte collection, and Mr. K. G. Blair, who has kindly searched through the collection at the British Museum, reports that there is none there or at Cambridge, England, where the Crotch collection is preserved. Dr. E. A. Schwarz, with whom Crotch was working at the time he wrote his key to *Disonycha*, has labelled as var. *pallipes* specimens in the National Museum from Michigan which agree with Crotch's brief key description, and Mr. Charles Schaeffer has labelled similar specimens as *pallipes* in the Brooklyn Museum collection. The specimens so labelled are slightly larger than *pensylvanica* (5-7 mm.), and the head is dark with a pale lower front. The prothorax is often immaculate or with only faint traces of five small spots, two lateral and three forming a triangle medially, the middle lower one being elongate. Occasionally all of these spots are well marked and sometimes even coalesce. The elytra are very finely punctate, and in the female the costae are well marked; the black elytral vittae are not ordinarily united at the apex as in *pensylvanica*. The femora and margin of the abdomen are almost invariably pale or reddish. The aedeagus (see fig. 6) resembles somewhat that of *conjugata*, although quite distinct. This species occurs from Massachusetts and New York southward to Florida and Texas and westward through Indiana, Wisconsin and North Dakota, even to Nevada. I have found it in Washington, D. C., feeding on *Polygonum*.

Disonycha procera Casey, described from Delaware, is identical with *pallipes*.

Disonycha uniguttata was described by Say in a publication on the insects collected on an expedition to the Rocky Mountains, and the type locality is given as the "United States." It is prob-

able that the specimens were collected somewhere between the Mississippi and Colorado, possibly along the Platte River.¹¹ Say described the species as more than a quarter of an inch long, black, with the front of the head and thorax rufous, the latter with a large central spot sometimes connected with a smaller yellowish or pale spot on each side; the elytra obsolete punctate with two vittae joining at the tip, the femora and margin of the abdomen rufous. This is the largest of the group (6-8 mm.), and the elytral punctation, while not conspicuous, is very much more pronounced than in any of the others except *limbicollis* Lec. Like *limbicollis*, the prothorax has a distinct lateral callosity on either side. The pale elytral vittae are wider than in *pensylvanica*, and there is little indication of costae, even in the females. The aedeagus (see fig. 7) is quite unlike that of *conjugata*, *pensylvanica* or *pallipes*. In fact the aedeagus resembles closely that of *limbicollis*, although differing in minor details from that species. This species is widespread, occurring from Canada to Virginia along the Atlantic coast, and west through Indiana, Illinois and Michigan. It has been collected by C. A. Frost on *Polygonum*.

Disonycha vicina Kirby may from description be either *uniguttata* or *pallipes*, but must remain a doubtful species, since the single specimen from which it was described is not to be found. Mr. K. G. Blair of the British Museum writes as follows:

"Of this we should have the type, and we have a specimen bearing the original registration label of the type, but without any determination label. It does not agree with the description by Kirby, but is a normal specimen of *D. caroliniana* F. It would appear that there has been some transference of the registration label in the past, and that the type is now lost."

Limbicollis LeConte was described (from Sacramento, California) as black with pale margin, and with two pale elytral vittae wider than in *pensylvanica*, and with the elytra not sulcate. This description corresponds with specimens in the National Museum collected in California. The head is entirely dark (sometimes a narrow pale line extends along the clypeus at the base of the front), a wide band leaving only a pale margin extends across the prothorax, and the ventral surface and legs are black. The punctation is similar to that of *uniguttata*. The

¹¹ Barber, Ent. News, vol. 39, 1928, p. 15.

aedeagus (see fig. 8), however, while similar, differs in several details. It is probably a distinct race, although closely allied to the eastern *uniguttata*. *Limbicollis* and *uniguttata* belong to a totally distinct group from the others listed under *pennsylvanica*.

On other species, the Central American species *D. reticollis* Jacoby,¹² belongs to this group with costate elytra. It is very similar in size, coloring and punctuation to *D. pallipes*, but usually paler. The head has only a dark basal band across the occiput, connecting narrowly with the eye on either side. The prothorax is usually immaculate or with traces of two darker spots anteriorly, and occasionally vestiges of the other two lateral spots and the median streak. The dark elytral vittae are narrower than in *pallipes*, and in the male there is little or no trace of costae, while in the female there is only one ridge, and that on the median black vitta, in contrast to the several costae of *pallipes*. The antennal joints are also different from those of *pallipes*. Like *conjugata*, *uniguttata*, and *pallipes*, it has been collected on *Polygonum*, specimens in the U. S. N. M. collection being labelled as so found at Porto Bello, Panama, by E. A. Schwarz.

II.

NEW WEST INDIAN CHRYSOMELIDAE.

The present paper is mainly the result of an attempt to identify a box of miscellaneous Chrysomelidae sent to me by Mr. S. C. Bruner, of Santiago de las Vegas, Cuba. Mr. Bruner collected most of the new species here described in the Sierra Maestra in the Province of Oriente, Cuba, a region in which little or no entomological collecting had been done before. The writer wishes to express her gratitude to him for the generosity with which he has supplied specimens and geographic data.

Metachroma adustum Suffrian.

Metachroma terminale Horn, Trans. Amer. Ent. Soc., vol. 19, July, 1892, p. 215.

Specimens collected by E. A. Schwarz at Biscayne Bay and Key West, Florida, were described by Horn as *Metachroma terminale*. The substance of his short description differs in no way from the long and detailed one of Suffrian,¹ based on Cuban material, ex-

¹² Jacoby, Biol. Centr.-Amer. Coleopt., vol. 6, pt. 1, 1884, p. 313.

¹ Suffrian, Archiv. f. Naturg., vol. 32, 1866, p. 339.

cept that Horn described the head as "sparsely punctate, slightly opaque," and Suffrian as thickly and finely punctate. Both the Cuban and Floridan specimens have the head moderately densely punctate, with an alutaceous surface more pronounced on the lower half of the front. The species apparently is known from the mainland only at the very tip of Florida. Since working out the identity of the two I have found that Dr. Schwarz had previously noted it on pinned labels in the collection. Specimens sent by Mr. Bruner were collected at Hershey and Santiago, Cuba.

Chalcosicya new genus.

Oval, convex, with thin, usually coarse and appressed pale pubescence and with coppery body luster. Head inserted well into the prothorax, and eyes partially covered below by thoracic episternum; no supraorbital grooves; eyes somewhat emarginate. Antennae slender, gradually thickened apically, about half the length of body, second joint not noticeably shorter than third. Prothorax not quite twice as broad as long, not contracted at the base, distinctly margined and not dentate; episternum with anterior margin usually a little produced, although sometimes nearly straight, but never emarginate. Elytra broadly ovate, with lateral ridges behind humeri in the female of some species, confusedly punctate, sometimes obsoletely striate. Femora not toothed, tibiae not emarginate, the claws acutely denticulate at base.

Type of genus: *Chalcosicya maestrensis* new species.

Because of its coarse, almost squamulose pubescence, its distinctly margined but not denticulate prothorax, and its produced prothoracic episternum, this genus is most closely related to *Glyptoscelis*. It differs from that genus by its much smaller size and oval shape, its sparser pubescence, its wider prothorax, which is not contracted at the base, its broader, more oval elytra, and its differently shaped aedeagus. It is more like *Colaspidea* in size, but differs from that genus in shape in the same way as from *Glyptoscelis*. In both size and shape it resembles superficially the genus *Nodonota*, but the deeply inserted head, the long second antennal joint, and the pubescence, as well as other characters, separate it from this genus. It is distinct from *Graphops* and *Metachroma* on account of the lack of supraorbital grooves. The South American genus *Sphaeropsis* has an entirely differently

shaped episternum which does not at all cover the lower part of the eyes.

Chalcosicya maestrensis new species (Fig. 1.)

Oval, shining, coppery, head and prothorax with sparse coarse pubescence, elytra less conspicuously pubescent, pronotum and elytra rather coarsely and thickly punctate. Head without callosities, a rather indistinct vertical fovea ending in a slight depression above clypeus; pronouncedly alutaceous with coarse punctation tending to become elongate and form wrinkles on occiput; with long coarse gray pubescence, not dense. Antennae slender and extending about half length of body, gradually thickened apically, the first three joints pale, next four becoming darker brown, eighth and ninth pale, and last two joints dark, second joint not noticeably shorter than third. Prothorax not quite twice as broad as long, with arcuate sides, not constricted at base, coarsely and moderately densely punctate, distinctly alutaceous, yet shining; with scattered long pale pubescence, thicker at the sides yet nowhere dense. Scutellum small, half elliptic. Elytra convex, broadly oval, with lateral ridges behind the humeri in female; surface shining, coarsely and rather closely and confusedly punctate, tending towards striation apically; not at all alutaceous; with very short, pale, coarse pubescence scarcely apparent on basal part of elytra, and becoming slightly longer apically; longer closely appressed pale hairs along lateral and basal margin and humeral depression, never dense. Body beneath reddish brown with coppery glints on femora and metasternum, metasternum coarsely punctate, ventral surface and legs with long appressed pale, not dense, pubescence. Claws with sharp basal tooth.

Length, 3.5 to 4.5 mm.; width, 2 to 2.5 mm.

Type-locality.—Summit of Pico Turquino, Sierra Maestra, altitude 1,375 to 1,525 m., Province of Oriente, Cuba, collected by S. C. Bruner and C. H. Ballou, July, 1922.

Type (♀) and 5 *paratypes* (2 ♀, 3 ♂).—Cat. No. 43114, U. S. N. M. 1 paratype in collection of S. C. Bruner.

This is one of the largest of a group of several small species, apparently confined to the West Indies, of which *nana*, hereby assigned to the same genus, is the only one hitherto described. *Nana* was placed by Suffrian under *Heteraspis* of LeConte. LeConte afterwards, discovering the earlier use of the name *Heteraspis* by Blanchard for an oriental genus, replaced it by the name

Graphops. *Nana* can not be referred to LeConte's genus *Graphops* on account of the lack of any supraorbital sulcus on the head, and Clavareau in *Coleopterum Catalogus* has referred it to the genus *Glyptoscelis*. The North American species of *Glyptoscelis* and the Venezuelan *G. aeneipennis*, which also extends to Trinidad and Grenada, are much larger insects, and in habitus bear little resemblance to the small West Indian species. Neither does the West Indian group resemble the small southwestern genus which Horn has referred to the Mediterranean genus *Colaspidea*. The prothorax is differently shaped from that of either *Colaspidea* or *Glyptoscelis*. It is nearly twice as broad as long, much wider than in typical *Glyptoscelis*, with lateral margins broadly arcuate, and not contracted at the base, and the elytra are wider and more oval, thus producing a more oval and less oblong shaped insect.

***Galerucella maculipes* new species (Fig. 9.)**

Elongate, subparallel, rather coarsely punctate and finely pubescent, elytra with callosities at base, postmedianly and antepically; pale yellow brown with dark antennae, head with median dark line, pronotum 7-spotted, elytra with ten narrow dark brown vittae, third and submarginal vittae more or less evanescent, and all obscure at apex, femora and often tibiae with dark median spot. Head densely and coarsely punctate, with fine appressed pubescence, pale with darker mouthparts, and with a median dark line down front, and often a black spot behind the eye at base of head. Antennae extending nearly to middle of elytra, dark brown, third joint longer than the others. Prothorax barely twice as broad as long, obtusely angulate on lateral margin; densely and coarsely punctate, with fine appressed pubescence; spots dark brown or piceous, small and usually seven in number, often contingent, these probably representing three large spots, one median, and two lateral, broken up. Scutellum pale, truncate. Elytra subparallel, narrowed in apical fourth, with blunt apex, a distinct basal callosity near scutellum on each elytron, another slightly below middle near suture, and the third at apical fourth, the last the most pronounced; surface densely and coarsely punctate and densely pubescent with short appressed hairs becoming very dense at apex; pale, with five narrow dark brown vittae on each elytron, suture and margin pale, the third and submarginal vittae frequently interrupted and all disappearing before apex, leaving apex

pale. Body beneath pale, the femora and often the tibiae with a median dark spot.

Length, 5.2 to 6 mm.; width, 2 to 2.3 mm.

Type-locality.—Summit of Pico Turquino, 1,100–1,300 m. altitude, Sierra Maestra, Province of Oriente, Cuba, collected by S. C. Bruner and C. H. Ballou, July, 1922.

Type (♂) and 3 *paratypes* (2 ♀, 1 ♂). Cat. No. 43115, U. S. N. M. 1 other paratype in collection of S. C. Bruner.

In shape, elytral callosities and markings this species is very similar to *Trirhabda obscurovittata* Jacoby² of Central America, which was placed in the genus *Trirhabda* probably because the third antennal joint was shorter than the fourth, although other characters, among them the shape of the aedeagus, clearly indicate that it does not belong to that genus. It is considerably larger (8 mm. or more) and also has wider and fewer vittae than the Cuban species. *Maculipes* has the third antennal joint distinctly longer than the fourth, and so for the present must be referred to the genus *Galerucella*. It differs from other species of *Galerucella* described from tropical America by the rather unusual maculation of the femora and tibiae.

***Stoiba indivisa* new species (Fig. 2.)**

Oval, faintly shining; head, prothorax, antennae and legs pale yellow, elytra deep blue, ventral surface black. Head usually visible from above, pale yellow with darker mouthparts, surface alutaceous, with a few coarse punctures, a fine median line down vertex. Antennae not longer than prothorax, pale yellow, first four basal joints subglabrous and slender, remaining joints gradually thickened and pubescent. Prothorax somewhat emarginate anteriorly, sides not arcuate, but much widened in a straight line three-quarters their length, thence slightly narrowed to base, twice as broad as long at widest point; explanate margin wide, basal margin sinuate, disk slightly convex with fine median line; surface alutaceous, with fine scattered punctures. Scutellum black, polished. Elytra convex, rounded, widest before middle, with prominent humeri but lacking the lateral sulcus and margin characteristic of *flavicollis*; surface alutaceous, dimly shining, with moderately coarse, dense punctation. Wings

² Biol. Centr.-Amer. Coleopt., vol. VI, Pt. 1, 1886, p. 486.

fully developed, body beneath black, shining, legs except at base entirely pale yellow, claws with distinct but short basal tooth.

Length, 6 to 8 mm.; width, 5 to 6 mm.

Type (♀).—Cat. No. 43116, U. S. N. M. Paratype (♂), also collected at Guantánamo, in collection of American Museum of Natural History, New York.

Type locality.—Guantánamo, Cuba, collected by W. M. Mann.

This species, while closely related to *flavicollis*, differs from it by its deep blue elytra, its coarser punctation, and by its lack of elytral sulcus, which in *flavicollis* distinctly divides the rounded arch of the elytra from the margin.

***Stoiba bruneri* new species. (Fig. 3.)**

Head, prothorax, antennae except for the last joint, which is deep brown, and legs reddish yellow, elytra deep purplish blue, body beneath black; not shining, prothorax and elytra with broad rounded margin, elytra strongly convex. Head barely perceptible from above in shallow emargination of anterior prothorax, pale reddish with dark mouthparts, alutaceous with a few punctures bearing fine hairs, a median vertical line and a supraorbital depression across vertex, eyes widely set. Antennae slender, apical joints gradually thickened, first and third joints longest, fourth shorter and a little longer than fifth, these first five basal joints not heavily pubescent, remaining joints broader and densely pubescent. Prothorax over twice as broad as long, widest in the middle, very slightly emarginate anteriorly with wide arcuate explanate lateral margins, broadly curving upwards, disk slightly convex with fine median line, basal margin sinuate, pointing down at basal angles and at scutellum. Scutellum shining black. Elytra strongly convex, with rounded explanate margin widest before middle, diminishing to apex; surface alutaceous with fine not dense punctation; entirely deep purplish blue. Wings vestigial. Body beneath dark and shining, legs entirely pale except at base, claws with a strongly marked basal tooth.

Length, 7.5 to 9 mm.; width, 6 to 7.8 mm.

Type and 6 *Paratypes*.—Cat. No. 43117, U. S. N. M. 2 other paratypes in collection of S. C. Bruner.

Type locality.—Sierra Maestra, altitude 1,380 m., Province of

Oriente, Cuba, collected by S. C. Bruner and C. H. Ballou, July, 1922.

The identity of Klug's *Cassida flavicollis* (*Himatidium nigripenne* Sturm Catal.),³ the type of Spaeth's genus *Stoiba*, is doubtful. There are several very similar species of this group occurring in Cuba. Suffrian, in his description of *Chelymorpha flavicollis*, mentioned another form, without naming it. Spaeth, in describing the genus *Stoiba* from specimens of "*flavicollis*," probably had in hand the small rounded species with very dark elytra and pale yellow antennae, which is represented in the National Museum collection by specimens from Havana and Pinar del Rio, on the northwestern end of the island. It is quite probable that this was the species originally described by Klug. Taking this to be the case, the present species, while usually larger and not so rounded, and with more angular elytral side margins, resembles *flavicollis* somewhat in coloring, although the elytra are deep purplish blue as contrasted with Klug's description of black elytra, and the color of the head, prothorax, antennae and legs is not pale yellow but distinctly reddish. The shape of the prothorax is very different also from that of *flavicollis*, in which the lateral margin is not rounded anteriorly, and is widest near the base. Spaeth, in the key in which he described the genus *Stoiba* distinguished the genus by having the fifth antennal joint like the apical joints and not slender and subglabrous like the basal joints. In *Stoiba bruneri* the basal joints are longer and more slender than the corresponding ones of *flavicollis*, and the fifth joint is not so thick or so densely pubescent as the apical joints. The last joint is deep brown. Neither *bruneri* nor the following species, *decemmaculata*, if the genus is based entirely on the length and shape of the antennal joints belongs to the genus *Stoiba* as Spaeth originally described it. In his original description⁴ he stated that he had no material of *Cassida swartzii* Thun. of Jamaica, or of *Chelymorpha angusticollis* Suff. of Cuba, and he then included them somewhat doubtfully, but later in *Coleoptorum Catalogus* he put them without question in the genus *Stoiba*. *Swartzii* and *flavicollis* are similar in having the fifth antennal joint short and pubescent and more like the apical joints, but *angusticollis*, *bruneri* and the fol-

³ Klug included this name in his original description, but no mention of its synonymy is found in Spaeth's treatment of the Cassidae in the *Junk Catalogue*.

⁴ Spaeth, *Deut. Ent. Zeitschr.*, 1909, p. 720.

lowing species, *decemmaculata*, have the fifth antennal joint intermediate in character between the basal and apical joints, and neither as pubescent nor as thick as the apical joints. In all three species, too, the wings are only vestigial, which is not true of all the specimens of *flavicollis*. Two specimens doubtfully referred to *flavicollis* in the National Museum collection with very bright blue elytra are also wingless.

***Stoiba decemmaculata* new species. (Fig. II.)**

Prothorax and elytra with wide lateral margin, elytra strongly convex; not shining, pale yellow, each elytron with two lateral-marginal and three median black spots, antennae, mouthparts, coxae, trochanters, joints of legs, tarsi and last ventral segment dark. Head somewhat apparent from above in slight emargination of anterior prothorax, but the widely separate eyes nearly concealed; a distinct median groove down front, and a supraorbital depression across vertex; surface alutaceous with a few coarse punctures, each one bearing a pale silky hair. Antennae not longer than prothorax, dark brown, basal joints slender, first and third joints about equal and longest, fourth, fifth and sixth shorter and diminishing gradually in length, fifth and sixth becoming wider and more pubescent, and remaining joints wider and densely pubescent. Prothorax barely twice as broad as long, widest in the middle, with broad lateral upward curving explanate margin, anteriorly shallowly emarginate over occiput of head, broadly arcuate on sides, and constricted somewhat at base, forming a sharp basal angle, basal margin sinuate; disk feebly convex, an indistinct median line more evident in middle; surface alutaceous with scattered, very fine punctation. Scutellum small, polished. Elytra strongly convex with broad explanate margin, widest behind basal angle, diminishing to apex; surface alutaceous with coarse dense punctation; each elytron marked by five black spots, the first elongate and in middle of base, the second median on height of elytron, and third on downward curve behind middle; the first lateral extending from margin half up the arched side of elytron, and second lateral near apex, also extending somewhat up the side. Wings vestigial. Body beneath more shining and lightly pubescent, the darkened coxae, joints, tarsi and last ventral segment giving a spotted appearance to the lower surface. Tarsal claws with a broad, blunt and short basal tooth, not at all conspicuous.

Length, 7 to 8.5 mm.; width, 6 to 7 mm.

Type (♀) and 2 *paratypes* (♂, ♀).—Cat. No. 43118, U. S. N. M. 1 paratype in collection of American Museum of Natural History, New York.

Type-locality.—Sierra Maestra, altitude 1,070 to 1,350 m., Province of Oriente, Cuba, collected by S. C. Bruner and C. H. Ballou, July, 1922.

Other localities.—Pico Turquino, Cuba, altitude 1,525 m.

Like the preceding species, *S. bruneri*, this species does not fit into the key in which Spaeth originally described the genus *Stoiba*, because the fifth antennal joint is intermediate in character between the basal and the apical joints. On the other hand, while *bruneri* resembles *flavicollis* in coloration and sculpture, *decemmaculata* and *angusticollis* are both pale yellow species with similar coarse, dense elytral punctation, and both have the elytra widest near the basal angle. There is one other closely related genus, also confined to the West Indies, *Elytrogona*, of which *decemmaculata* is suggestive in the pattern of its elytral spotting and coarse punctation, although it is not nearly so coarsely punctate as the species of *Elytrogona*. No spotted species of *Stoiba* has previously been described. One is struck by the apparent intergradation between these two genera as illustrated by *decemmaculata* and the following species, *Elytrogona gemmata*.

This species has been doubtfully determined in the collection of the American Museum of Natural History as *Elytrogona bulla* Boh., but it can not very well be that since that species is described as being red, with the elytra most coarsely punctate ("cribrose"), and the elytral spots are differently placed from those of *decemmaculata*.

***Elytrogona gemmata* new species. Fig. 10.**

Red with pale yellow antennae, elytra with eight black spots, somewhat shining; prothorax and elytra widely margined, elytra coarsely punctate, very convex, and with apices produced. Head not visible from above, red with darker mouthparts; a median line down vertex; surface alutaceous with a few punctures. Antennae not longer than prothorax, first five basal joints slender, subglabrous, first and third joints longest, fourth and fifth subequal, the following joints somewhat thickened but all longer than broad and pubescent. Prothorax barely twice as broad as long at its widest point, the middle; the anterior margin not at all emarginate, but

straight over the head, the sides explanate and broadly arcuate, constricted at the base in a sharp basal angle, basal margin lightly sinuate; disk with fine median line; surface alutaceous, indistinctly punctulate. Scutellum very inconspicuous. Elytra strongly convex, with broad explanate margin widest before middle and tapering to apex, apices produced; surface shining with extremely coarse punctures as in other species of *Elytrogona*; each elytron with four large black spots, two placed near suture on arch of elytron and two lateral, the one near the middle anteriorly extending onto explanate margin. Wings vestigial? Body beneath entirely red. Claws with broad blunt basal tooth.

Length, 8.5 mm.; width, 7 mm.

Type (♂).—Cat. No. 43119, U. S. N. M.

Type-locality.—Haiti, collected by Emery C. Leonard in 1920.

This species, like *Stoiba decemmaculata*, presents an interesting intergradation between the genera *Stoiba* and *Elytrogona*, but in its bright red coloring, elytral spotting and very coarse punctuation it bears a closer relationship to *Elytrogona*. It resembles *Stoiba* more in the shape of the prothorax and wider elytral wing. The shape of the last six antennal joints is not like that of the other species of *Elytrogona*, the joints being longer and more cylindrical. Although in his description of *Elytrogona* Boheman distinctly states that the elytral apices are not produced, there is a strong indication of it in some specimens of *E. quatuordecimmaculata* Latr. and *E. bacca* Boh. (? the males), and in the one specimen of *gemmata* known this character is developed to a marked degree. Possibly the female has less produced apices. The expansion of the lateral margin in the elytra is also much greater in the present species as contrasted with other species of *Elytrogona*. Except for one which is reported from Cuba, all the species of *Elytrogona* have thus far been taken only in Haiti.